

Operating Instructions & Parts Manual

4TJ97C

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

# Dayton® 6 x 12" Belt & Disc Sander

## Description

Dayton 6" Belt and 12" Disc Sander with cabinet is constructed of rugged cast iron and heavy gauge steel providing stability and vibration-free operation. The 6 x 48" belt and 12" diameter disc are used to sand, deburr, bevel and grind large workpieces of wood, plastic and metal.

The 6 x 48" belt housing can be pivoted from vertical to horizontal for sanding large, straight workpieces. The belt assembly includes cast iron table that tilts out 45°, miter gauge and 4" dust collection chute. The belt oscillates across platen to reduce heat build-up, extend belt life and reduce operator fatigue.

The 12" diameter disc can be used to sand or bevel surfaces with the use of cast iron table that tilts out 45° and in 20°, miter gauge slot and 4" dust collection chute.

The 3" diameter idler drum permits the sanding of contoured shapes and finishes by positioning the belt assembly from vertical to horizontal position.

The two dust collection chutes accept standard 4" dust collection hose for quick removal of dust. The adjustable miter gauge can be used on both the belt and disc tables for guiding the workpiece at any desired angle while sanding.

## Unpacking

Refer to Figure 1.

Check for shipping damage. If damage has occurred, a claim must be filed with carrier. Check for completeness. Immediately report missing parts to dealer.

The sander comes assembled as one unit. Additional parts which need to be fastened to sander, should be located and accounted for before assembling.

- A Abrasive disc  
B Belt table with trunnion  
C Miter gauge assembly  
D Two handles  
E Work stop

Parts bag includes: nine 8mm flat washer, four 8-1.25mm hex nuts and four foot rests with bolts.

## Specifications

Belt size . . . . . 6 x 48"  
Belt platen area . . . . . 6¼ x 16¾"  
Belt drum dimensions . . . . . 3 x 6"

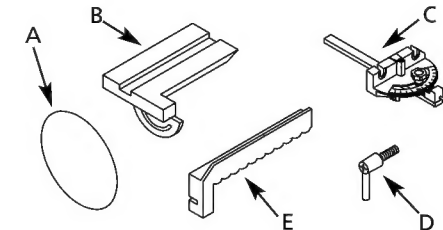


Figure 1 – Unpacking

Belt table dimensions . . . . . 6 x 10⅞"  
Belt table tilts . . . . . -20° to +45°  
Belt dust chute diameter . . . . . 4"  
Belt speed . . . . . 1830 FPM  
Disc diameter . . . . . 12"  
Disc table dimensions . . . . . 7 x 16"  
Disc table tilts . . . . . 0 to 45° outward  
0 to 20° inward  
Disc dust chute diameter . . . . . 4"  
Disc speed . . . . . 2350 RPM  
Overall dimensions . . . . . 23 x 21 x 58"  
Switch . . . 120 Volts, SP, Locking rocker  
Motor . . . . . 1½ HP, 3450, RPM, 120V  
Weight . . . . . 178 lbs  
Shipping Weight . . . . . 240 lbs

## General Safety Information

**▲ WARNING** For your own safety, read all of the instructions and precautions before operating tool.

**▲ CAUTION** Always follow proper operating procedures as defined in this manual even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

**▲ WARNING** Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm.

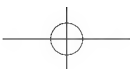
Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures vary, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

## BE PREPARED FOR JOB

1. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
2. Wear protective hair covering to contain long hair.
3. Wear safety shoes with non-slip soles.



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## General Safety Information (Continued)

4. Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
5. Wear face mask or dust mask if operation is dusty.
6. Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

### PREPARE WORK AREA FOR JOB

1. Keep work area clean. Cluttered work areas invite accidents.
2. Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
3. Work area should be properly lighted.
4. Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
5. Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
6. Keep visitors at a safe distance from work area.
7. Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

### TOOL SHOULD BE MAINTAINED

1. Always unplug tool prior to inspection.
2. Consult manual for specific maintaining and adjusting procedures.

3. Keep tool lubricated and clean for safest operation.
4. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
5. Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
6. Check for damaged parts. Check for alignment of moving parts, binding, breakage, and mounting or any other condition that may affect a tool's operation.
7. A guard or other damaged part should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)

### KNOW HOW TO USE TOOL

1. Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
2. Disconnect tool when changing belt or abrasive disc.
3. Avoid accidental start-up. Make sure that the tool is in the OFF position before plugging in.
4. Do not force a tool. It will work most efficiently at the rate for which it was designed.
5. Keep hands away from moving parts and sanding surfaces.
6. Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
7. Do not overreach. Keep proper footing and balance.

8. Never stand on tool. Serious injury could occur if tool is tipped or if belt or disc are unintentionally contacted.
9. Know your tool. Learn the tool's operation, application and specific limitations.
10. Use recommended accessories (Refer to page 15). Use of improper accessories may cause risk of injury to persons.
11. Handle workpiece correctly. Protect hands from possible injury.
12. Turn machine off if it jams. Belt jams when it digs too deeply into workpiece. (Motor force keeps it stuck in the work.)
13. Support workpiece with miter gauge, belt platen or work table.
14. Maintain 1/16" maximum clearance between table and sanding belt or disc.

**⚠ CAUTION** *Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.*

**⚠ WARNING** *Do not attempt to operate tool until it is completely assembled according to instructions.*

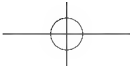
### Assembly

Refer to Figures 2, 3, 4, 5, 6, 7, 11 and 12.

**⚠ CAUTION** *Do not attempt assembly if parts are missing. Use this manual to order repair parts.*

Before sander is assembled, a suitable location should be chosen. The sander with cabinet weighs approximately 200 lbs when completely assembled. They should be assembled on location.

1. Sander needs to be set on a flat, level surface.



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### Assembly (Continued)

2. Make sure there is ample room for moving the workpiece through the entire cut. There must be enough room that neither the operator nor the bystanders will have to stand in line while using the tool.
3. Good lighting and correct power supply are also required for a proper work area.

### ADJUST BELT HOUSING TO VERTICAL POSITION

Refer to Figures 11 and 12.

1. Loosen one hex nut (Figure 11, Ref. No. 12) on the belt housing casting (Figure 11, Ref. No. 16). Do not take out hex nut.
2. Move to the rear of the sander and gently lift the belt housing up supporting the housing from both sides.
3. Lift housing until it is adjusted to the vertical position.
4. Tighten one hex nut (Figure 11, Ref. No. 12) from the rear of the sander.
5. Move to the front of the sander; loosen and remove three knobs (Figure 12, Ref. Nos. 31 and 32).
6. Remove dust hood (Figure 12, Ref. No. 30).
7. Tighten hex nut (Figure 11, Ref. No. 12).
8. Replace dust hood using knobs from step 5.

### ATTACH FOOT RESTS

Refer to Figure 12.

Required parts and hardware:  
Four foot rests with bolts  
Eight 5/16" flat washers  
Four 5/16"-18 Hex nuts

**▲ CAUTION** *Sander with cabinet weighs approximately 200 lbs. At least two people are required to attach foot rests.*

1. Carefully tip the sander to raise cabinet from the floor just enough so that one foot rest with bolt can be positioned under the cabinet corner so that the bolt slides through the hole on the cabinet base. Slowly set the sander back to the floor.
2. Repeat step 1 three more times to position one foot rest with bolt under each of the cabinet corner.
3. Loosen knob (Ref. No. 53) and open cabinet door (Ref. No. 54).
4. Using the cabinet door opening, secure foot rests to cabinet using four flat washers and four hex nuts.
5. Make sure all the hex nuts are tight.
6. Close cabinet door and secure it using knob from step 3.

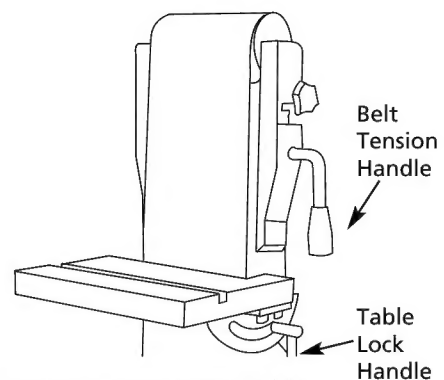
### ATTACH BELT TABLE

Refer to Figures 2 and 11.

Required parts and hardware:  
Belt table with trunnion  
Handle  
8mm Flat washer

1. Position belt table (Ref. No. 70) on the belt housing (Ref. No. 16) so that the trunnion (Ref. No. 71) travels on the slide (Ref. No. 58).
2. Set the belt table position so that the 0° mark on the trunnion is aligned with the pointer (Ref. No. 61).
3. Secure belt table position using the handle and flat washer. Tighten handle into the threaded hole on the belt housing.
4. Sander is shipped with the belt tension handle (Ref. No. 56) at the

released position. Pull down the handle toward the belt table to tension the belt.



**Figure 2 – Attach Belt Table**

5. Make sure that the clearance between the belt and belt table does not exceed 1/16".
6. Wear protective glove and manually push the belt to verify that belt travels smoothly and without interference.

### POSITION DISC TABLE

Refer to Figure 11.

Required part:  
Handle

1. Sander is shipped with the disc table (Ref. No. 82) attached to the disc guard (Ref. No. 74) using a handle with flat washer one side and a hex head bolt with flat washer on the other side.
2. Loosen and remove hex head bolt and flat washer from the disc table.
3. Replace hex head bolt with the handle provided. Secure disc table to disc guard using the handle and flat washer.

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## Assembly (Continued) ATTACH ABRASIVE DISC TO ALUMINUM DISC

Refer to Figures 3, 4 and 11.

1. Sander is shipped with the abrasive (Ref. No. 80) not applied to the aluminum disc (Ref. No. 79).
2. Clean the aluminum disc if necessary prior to applying the abrasive.
3. Remove the adhesive cover from the back of the abrasive disc.
4. Slide the abrasive between the disc table and aluminum disc and center abrasive on the aluminum disc.
5. Apply pressure on abrasive to paste.
6. Make sure abrasive is pasted evenly on the aluminum disc.

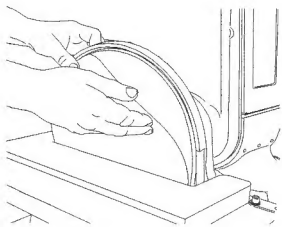


Figure 3 – Attach Abrasive Disc

7. Make sure that the clearance between disc table and abrasive disc does not exceed 1/16".

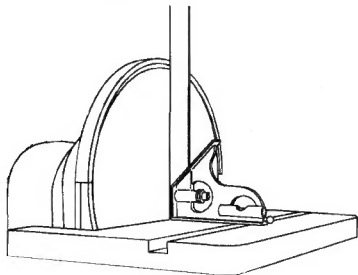


Figure 4 – Check Disc Table

8. Use a straight edge or square to check if the disc table is at right angle to the disc.

9. Wear a protective glove and manually turn the disc to verify that the disc turns freely and without interference.

## ATTACH MITER GAUGE

Refer to Figures 11 and 12.

Required part:

Miter gauge assembly

1. Miter gauge is shipped completely assembled (Figure 12, Ref. No. 1) and can be used with the belt or disc tables (Figure 11, Ref. Nos. 70 and 82).
2. Slide miter gauge bar (Figure 12, Ref. No. 11) into the slot on belt or disc table.

## Installation

Refer to Figures 5, 6 and 7.

Sander comes with the motor and wiring installed. The 120/240-volt AC induction motor has the following specifications.

**NOTE:** Though the motor works at 120/240-volt AC, sander must be operated at 120 volts only.

Horsepower	1½
Amperes	14
Frequency	60 HZ
Phase	Single
RPM	3450
Prewired	120V

**⚠ WARNING** All electrical connections must be performed by a qualified electrician.

**⚠ WARNING** Do not connect sander to the power source until all assembly steps have been completed.

## POWER SOURCE

1. The motor is designed for operation on the voltage and frequency specified.

2. Normal loads will be handled safely on voltages not more than 10% above or below the specified voltage.
3. Running the unit on voltages which are not within the range may cause overheating and motor burn-out.
4. Heavy loads require that the voltage at motor terminals be no less than the voltage specified. Power supply to the motor is controlled by a single pole locking rocker switch. Remove the key to prevent unauthorized use.

## GROUNDING INSTRUCTIONS

**⚠ WARNING** Improper connection of equipment grounding conductor can result in the risk of electrical shock. Equipment should be grounded while in use to protect operator from electrical shock.

Check with a qualified electrician if grounding instructions are not understood or if in doubt as to whether the tool is properly grounded.

This tool is equipped with an approved cord rated at 240V and a 3-prong grounding type plug rated at 125V (See Figure 5) for your protection against shock hazards.

Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 5).

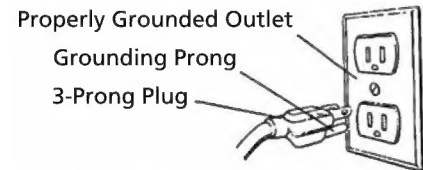


Figure 5 – 3-Prong Receptacle

Do not remove or alter grounding prong in any manner. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

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Installation (Continued)

**⚠ WARNING** *Do not permit fingers to touch the terminals of plug when installing or removing from outlet.*

Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician.

Inspect tool cords periodically, and if damaged, have repaired by an authorized service facility.

Green (or green and yellow) conductor in cord is the grounding wire. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with National Electric Code and local codes and ordinances.

**⚠ WARNING** *This work should be performed by a qualified electrician.*

A temporary 3-prong to 2-prong grounding adapter (See Figure 6) is available for connecting plugs to a two pole outlet if it is properly grounded.

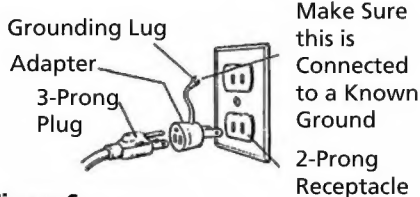


Figure 6 – 2-Prong Receptacle with Adapter

Do not use a 3-prong to 2-prong grounding adapter unless permitted by local and national codes and ordinances. (A 3-prong to 2-prong grounding adapter is not permitted in Canada.) Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.

Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

1. The use of any extension cord will cause some drop in voltage and loss of power.
2. Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
3. Use the table to determine the minimum wire size (A.W.G.) extension cord.
4. Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
5. If the extension cord is worn, cut or damaged in any way, replace it immediately.

EXTENSION CORD LENGTH

Wire Size	A.W.G.
Up to 25 ft. ....	14
25-50 ft. ....	12

**NOTE:** Using extension cords over 50 ft. long is not recommended.

ELECTRICAL CONNECTIONS

**⚠ WARNING** *All electrical connections must be performed by a qualified electrician.*

**⚠ WARNING** *Make sure tool is off and disconnected from power source while motor is mounted, connected, reconnected or any time wiring is inspected.*

Motor and wires are installed as shown in wiring diagram (See Figure 7). Motor is assembled with approved, 3-conductor cord to be used at 120 volts. Motor is prewired at the factory for 120 volts.

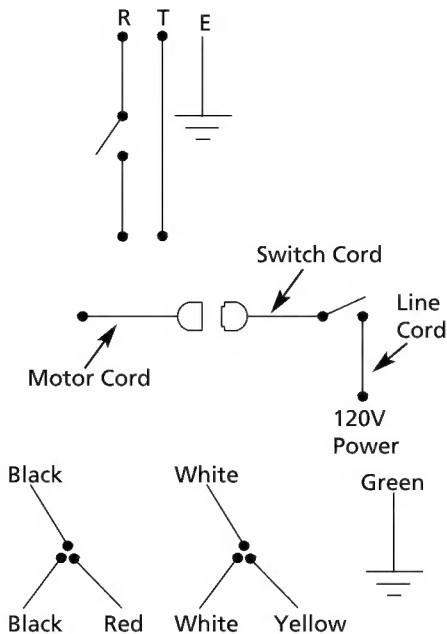


Figure 7 – Wiring Schematic

Sander has a locking rocker switch with removable key for safe and easy operation. Remove the key from the locking rocker to prevent unauthorized use of the tool. To replace the key, press key into the slot on the locking rocker.

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## ENGLISH

### Installation (Continued)

Sander also has a thermal overload protector to prevent damage to motor and other electrical components. The thermal overload protector will get activated when high temperature conditions are observed while operating the tool. This will turn the tool off to prevent temperature buildup. If that occurs, give adequate time for the sander to cool down and depress the reset button once. The tool will be ready to operate.

### Operation

Refer to Figures 8, 9, 10, 11 and 12.

**▲ WARNING** *Operation of any power tool can result in foreign objects being thrown into eyes which can result in severe eye damage. Always wear safety goggles complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation. Safety goggles are available through your Grainger catalog.*

**▲ CAUTION** *Always observe the following safety precautions:*

1. Whenever adjusting or replacing any parts on the tool, turn switch off and remove the plug from power source.
2. Recheck table handles. They must be tightened securely.
3. Make sure all guards are properly attached and securely fastened.
4. Make sure all moving parts are free and clear of any interference.
5. Make sure all fasteners are tight and have not vibrated loose.
6. With power disconnected, test operation by hand to verify clearance and adjust if necessary.

7. Always wear eye protection or face shield.
8. Make sure abrasive belt tracks properly. Correct tracking gives optimum performance.
9. After turning switch on, always allow belt to come up to full speed before sanding or grinding.
10. Be sure motor runs clockwise on disc side. Abrasive belt must travel down.
11. Keep your hands clear of abrasive belt, disc and all moving parts.
12. For optimum performance, do not stall motor or reduce speed. Do not force the work into the abrasive.
13. Support workpiece with belt table when sanding with belt, with disc table when sanding with disc.
14. Never push a sharp corner of workpiece rapidly against belt or disc. Abrasive backing may tear.
15. Replace abrasives when they become loaded (glazed) or frayed.
16. When grinding metal, move workpiece across abrasive to prevent heat build-up.
17. Never attempt wet sanding. If workpiece becomes too hot to handle, cool it in water.

### POSITION BELT TABLE

Refer to Figures 8 and 11.

The belt table (Ref. No. 70) can be tilted from -20° to +45°. To adjust belt table position:

1. Unlock the handle (Ref. No. 69) on the right side of table.
2. Set the belt table to desired angle using the scale.
3. Lock the handle to secure belt table position.

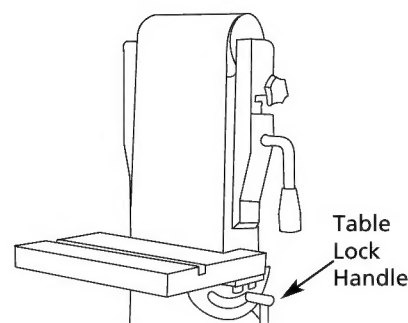


Figure 8 – Adjust Belt Table

### WORK STOP

Refer to Figure 11.

The work stop (Ref. No. 63) can be used instead of the belt table.

1. Remove belt table from the belt housing (Ref. No. 16) by loosening and removing handle (Ref. No. 69).
2. Mount work stop using bolt (Ref. No. 65) and washer (Ref. No. 64) which are located on belt housing.

### ADJUSTING BELT HOUSING

Refer to Figures 9, 11 and 12.

The belt housing (Figure 11, Ref. No. 16) can be positioned at a full vertical position, a full horizontal position, or at any angle in between which is convenient for the sanding operation.

To adjust belt housing position:

1. Loosen and remove three knobs (Figure 12, Ref. Nos. 31 and 32).
2. Remove dust hood (Figure 12, Ref. No. 30).
3. Loosen hex nut (Figure 11, Ref. No. 12).
4. Move to the rear of the sander.
5. Loosen hex nut (Figure 11, Ref. No. 12) below the belt cover (Figure 11, Ref. No. 52).
6. Gently push belt housing to move to the desired angle.



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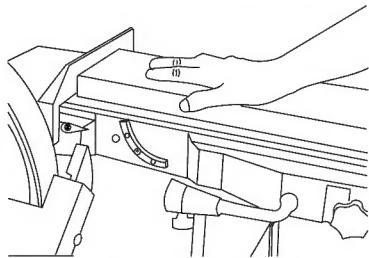
### Operation (Continued)

7. A positive stop bolt (Figure 12, Ref. No. 29) is provided to stop the belt housing at the full horizontal position.
8. Tighten both hex nuts (Figure 11, Ref. No. 12) to secure belt housing position.
9. Replace dust hood using the knobs from step 1.

### HORIZONTAL BELT SANDING

Refer to Figures 9 and 11.

1. Adjust the belt housing to full horizontal position as described in the above section, "Adjusting Belt Housing".
2. Remove the belt table by removing handle (Ref. No. 69).
3. Install work stop as described above.



**Figure 9 – Horizontal Belt Sanding**

4. Idler drum (Ref. No. 49) can be used as a contact drum to sand curved surfaces.

**NOTE:** Removal of the belt guard (Ref. No. 83) will be required.

### ABRASIVE BELT FINISHING

1. Finishing flat surfaces: Hold workpiece firmly with both hands; keep fingers away from abrasive belt. Use work stop. Work stop is used to position and secure work being sanded. Keep end butted against work stop and move work evenly across abrasive belt. Use extra caution when finishing very thin pieces.

Finishing long pieces: remove work stop. Apply only enough pressure to allow abrasive belt to remove material.

2. Finishing curved edges: Finish outside curves on flat portion of abrasive belt. Finish inside curves on idler drum portion of abrasive belt.
3. Finishing end grain: It is more convenient to finish ends of long workpieces with the abrasive belt in a vertical position.
4. Move work evenly across the belt.
5. For accuracy use miter gauge.
6. Adjust belt table angle for beveled work.

### USING MITER GAUGE

Refer to Figure 12.

1. The miter gauge is used on either the disc or belt table. Use the miter gauge for securing the work and holding the proper angle while sanding.
2. Adjust angle by repositioning the miter gauge (Ref. No. 5). Loosen the knob (Ref. No. 2) to reposition miter gauge.
3. Tighten the knob to secure miter gauge position.
4. Miter gauge assembly has a positive stop set-up for 90° and 45° on either side.
5. To use the positive stop, loosen the knob, retract the indexing pin (Ref. No. 12) gently, turn the miter gauge slightly, slide in indexing pin and turn the miter gauge until the edge of the screw (Ref. No. 7) is stopped by the indexing pin.
6. Check accuracy of miter gauge scale (Ref. No. 15).

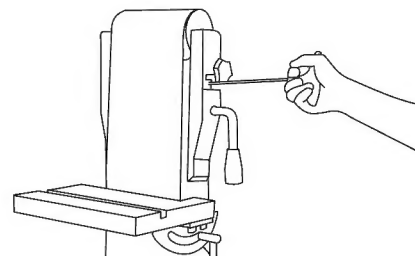
7. Use a combination square to adjust miter gauge square to disc. Scale should be at zero. Loosen screw (Ref. No. 17) and reposition scale if necessary.

### BELT TRACKING

Refer to Figures 10 and 11.

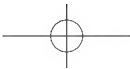
Belt (Ref. No. 73) should oscillate around center on drive and idler drums (Ref. Nos. 15 and 49). The sander is shipped with the tracking mechanism properly adjusted. However, if adjustment is necessary:

1. Loosen bolts (Ref. No. 84) and remove belt guard (Ref. No. 83).
2. Loosen knob (Ref. No. 55) on right side of belt housing (Ref. No. 16).
3. Turn the unit on.
4. Insert a 1/8" or 5/32" hex wrench into the hole on adjusting nut (Ref. No. 41) on either side.



**Figure 10 – Belt Tracking**

5. Turn the adjusting nut to the right to move belt toward you or turn the adjusting nut to the left to move belt away from you.
6. Make sure belt rides on the center of drive and idler drums.
7. Turn the unit off.
8. Tighten knob on right side of belt housing to secure tracking adjustment.
9. Replace belt guard.



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## Operation (Continued) REPLACING BELT

Refer to Figures 10 and 11.

1. Sanding belt must be replaced when worn, torn, or glazed.
2. Push up the belt tension handle (Ref. No. 56) to release belt tension.
3. Loosen bolts (Ref. No. 84) and remove belt guard (Ref. No. 83).
4. Loosen and remove four knobs (Ref. No. 53) from the rear of the sander.
5. Remove belt cover (Ref. No. 52).
6. Slide old belt off the drive and idler drums (Ref. Nos. 15 and 49).

**NOTE:** There may be an arrow on the inside of the belt. The arrow should point down toward the belt table to ensure that the splice in the belt will not come apart.

7. Slide new belt over the drive and idler drums; center belt on drums.
8. Push the belt tension handle toward the drive drum to tension belt.
9. Replace belt cover using knobs.
10. Replace belt guard.
11. Replace support bracket using hex head bolt, washers and knob from steps 3 and 4.
12. Wear a protective glove and manually rotate the belt by hand to check tracking. If tracking needs to be adjusted, follow steps described in "Belt Tracking".
13. Make sure belt rides centered on drive and idler drums.

## POSITION DISC TABLE

Refer to Figure 11.

1. Disc table (Ref. No. 82) is adjustable from 0° to 45° outward and 0° to 20° inward.
2. To adjust the disc table position, loosen the two handles (Ref. No. 69) from either side of the disc table.
3. Use the scale on disc table trunnions to set table at the desired angle.
4. Secure disc table position by tightening the two handles.

## ABRASIVE DISC FINISHING

1. Abrasive disc sanding is well suited for finishing small flat surfaces and convex edges.
2. Move workpiece across down side (right) of abrasive disc.
3. Abrasive disc moves fastest and removes more material at outer edge.
4. For accuracy, use miter gauge.

## REPLACING ABRASIVE DISC

Refer to Figures 11 and 12.

1. Loosen and remove four bolts (Figure 11, Ref. No. 62) from disc cover plate (Figure 11, Ref. No. 81).
2. Loosen two top bolts (Figure 12, Ref. No. 37) from dust collection port (Figure 12, Ref. No. 38).
3. Remove disc cover plate.
4. Remove old abrasive by peeling it from the aluminum disc. Removing aluminum disc is not necessary.
5. Clean aluminum disc if necessary. Select the proper abrasive disc and apply to aluminum disc.
6. Additional abrasive discs are available (See Recommended Accessories, page 15).

7. Replace disc cover plate.
8. Tighten bolts on dust collection port.
9. Replace bolts from step 1 to secure disc cover plate.

## BELT OSCILLATION

Refer to Figure 11.

1. To activate belt oscillation, push in knob located on gear box (Ref. No. 6).
2. To disable belt oscillation, pull out knob.

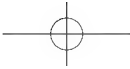
## Maintenance

**⚠ WARNING** *Make certain that the unit is disconnected from power source before attempting to service or remove any component.*

## REPLACING V-BELT

Refer to Figures 11 and 12.

1. Turn sander off and disconnect it from power source.
2. Loosen and remove two handles (Figure 11, Ref. No. 69) from either side of the disc table (Figure 11, Ref. No. 82).
3. Slide out disc table from the disc guard (Figure 11, Ref. No. 74).
4. Loosen the set screw (Figure 11, Ref. No. 14) securing the aluminum disc (Figure 11, Ref. No. 79). Use the hole on the top of disc guard to locate and loosen set screw. Do not remove set screw.
5. Loosen and remove four bolts (Figure 11, Ref. No. 62) from disc cover plate (Figure 11, Ref. No. 81).
6. Loosen and remove four bolts (Figure 12, Ref. No. 37) from dust collection port (Figure 12, Ref. No. 38).





# Model 4TJ97C

## Maintenance (Continued)

7. Remove disc cover plate and dust collection port.
8. Slide out and remove aluminum disc.
9. Open cabinet door (Figure 12, Ref. No. 8).
10. Turn knob (Figure 12, Ref. No. 32) on bracket (Figure 12, Ref. No. 46) to release tension on V-belt (Figure 11, Ref. No. 78).
11. Replace V-belt. Use parts list to order the appropriate V-belt.
12. Tighten knob on bracket to tension the V-belt.
13. Do not over tension the V-belt. Excessive tension on V-belt will reduce life of the belt and function of the tool. A belt is properly tensioned when light pressure applied to midpoint of the belt produces about 1/2" deflection.
14. Close the cabinet door and secure it with the knob.
15. Replace aluminum disc and secure it by tightening the set screw.

16. Replace dust collection port and disc cover plate and secure it with bolts from steps 5 and 6.
17. Replace disc table onto the disc guard and secure it using the two handles from step 2.

## CLEANING

1. Keep machine and workshop clean. Do not allow sawdust to accumulate on the tool.
2. Keep the drums clean. Dirt on drums will cause poor tracking and belt slippage.
3. Operate tool with dust collector to keep dust from accumulating.

**⚠ WARNING** *After sanding wood or non-metallic material, always clean dust collector and guards of sawdust before grinding metal. Sparks could ignite debris and cause a fire.*

4. Be certain motor is kept clean and is frequently vacuumed free of dust.
5. Use soap and water to clean painted parts, rubber parts and plastic guards.

## LUBRICATION

1. The shielded ball bearings in this tool are permanently lubricated at the factory. They require no further lubrication.
2. When operation seems stiff, a light coat of automobile-type wax applied to the belt and disc tables will make it easier to feed the work while finishing.
3. Do not apply wax to the belt platen. Belt could pick up wax and deposit it on the drums causing belt to slip.
4. Periodically use a grease gun to add grease to gearbox assembly through grease nipple.

## KEEP SANDER IN REPAIR

1. If power cord is worn, cut or damaged in any way, have it replaced immediately.
2. Replace worn abrasives when needed.
3. Replace any damaged or missing parts. Use parts list to order parts.
4. Any attempt to repair motor may create a hazard unless repair is done by a qualified service technician.

Dayton® 6 x 12" Belt & Disc Sander

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Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Motor will not start	1. Low voltage	1. Check power for proper voltage
	2. Open circuit in motor or loose connections	2. Inspect all lead connections on motor for loose or open connection
	3. Thermal overload protector activated	3. Push thermal overload button to reset
Motor will not start; fuses blown or circuit breakers tripped	1. Short circuit in line cord or plug	1. Inspect line cord or plug for damaged insulation and shorted wires
	2. Short circuit in motor or loose connections	2. Inspect all lead connections on motor for loose or shorted terminals or worn insulation on wires
	3. Incorrect fuses or circuit breakers in power line	3. Install correct fuses or circuit breakers
	4. Thermal overload protector activated	4. Push thermal overload button to reset
Motor fails to develop full power (power output of motor decreases rapidly with decrease in voltage at motor terminals)	1. Power line overloaded with lights, appliances and other motors	1. Reduce load on power line
	2. Undersized wires or circuits too long	2. Increase wire sizes, or reduce length of wiring
	3. General overloading of power company's facilities	3. Request a voltage check from power company
	4. V-belt tension not correct	4. Replace V-belt
Motor overheats	1. Motor overloaded	1. Reduce load on motor
	2. V-belt over tensioned	2. Replace V-belt
Motor stalls (resulting in blown fuses or tripped circuit breakers)	1. Short circuit in motor or loose connections	1. Inspect connections in motor for loose or shorted terminals or worn insulation on lead wires
	2. Low voltage	2. Correct the low line voltage conditions
	3. Incorrect fuses or circuit breakers in power line	3. Install correct fuses or circuit breakers
	4. Motor overloaded	4. Reduce load on motor
Machine slows down while operating	Applying too much pressure to workpiece	Ease up on pressure
Abrasive belt runs off top wheel	Not tracking properly	See operating instruction section "Replacing Abrasive Belt"

**4TJ97C**

## Dayton 6 x 12" Belt & Disc Sander

[illegible]

**For Repair Parts, call 1-800-323-0620**  
**24 hours a day - 365 days a year**

Please provide following information:  
-Model number  
-Serial number (if any)  
-Part description and number as shown in parts list

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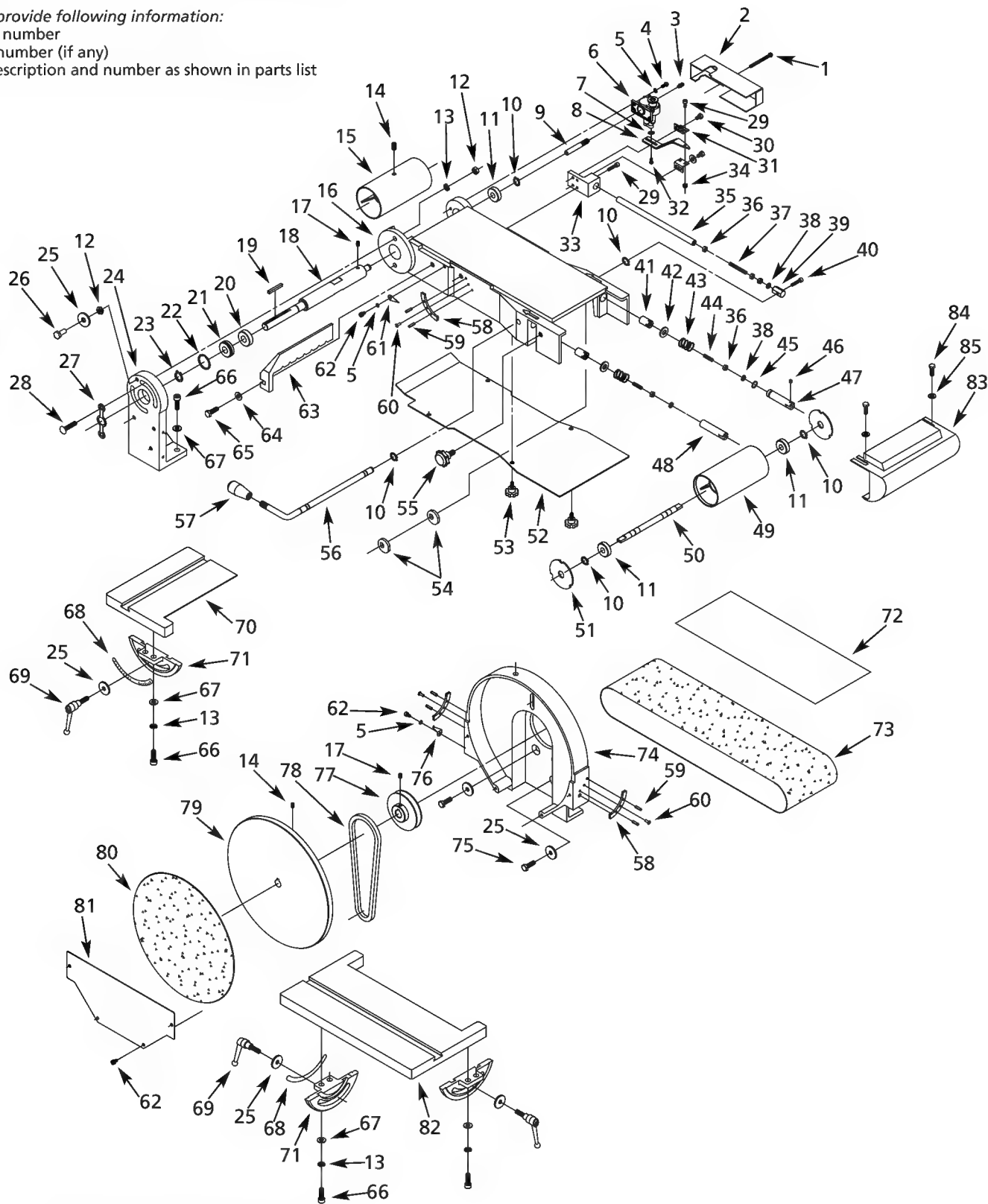


Figure 11 – Repair Parts Illustration for Sander

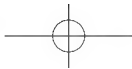
Repair Parts List for Sander

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	5-0.8 x 60mm Pan head screw	*	1	44	6-1.0 x 32mm Set screw	*	2
2	Guard	25495.00	1	45	11.2 x 2.65mm O-ring	25526.00	1
3	Grease nipple	25520.00	1	46	5-0.8 x 6mm Set screw	*	1
4	5-0.8 x 10mm Pan head screw	*	3	47	Right adjusting bar	25505.00	1
5	5mm Lock washer	*	5	48	Left adjusting bar	25506.00	1
6	Gearbox assembly	25528.00	1	49	Idler drum	25509.00	1
7	4-0.7mm Hex nut	*	1	50	Idler drum shaft	25489.00	1
8	Crank	25521.00	1	51	Drum cap	25508.00	2
9	Gear shaft	25527.00	1	52	Belt cover	03062.00	1
10	3AMI-12 Retaining ring	00519.00	9	53	Knob	25501.00	4
11	Ball bearing 6201ZZ	1L014	3	54	Cam	25500.00	2
12	8-1.25mm Hex nut	*	3	55	Knob	25498.00	1
13	8mm Lock washer	*	8	56	Belt tension handle	25502.00	1
14	8-1.25 x 10mm Set screw	*	3	57	Knob	25503.00	1
15	Drive drum	25493.00	1	58	Slide	25485.00	3
16	Belt housing	25499.00	1	59	5-0.8 x 10mm Flat head screw	*	6
17	6-1.0 x 10mm Set screw	*	2	60	Rivet	25484.00	3
18	Drive shaft	25494.00	1	61	Pointer	03066.00	1
19	5 x 5 x 60mm Key	07921.00	1	62	5-0.8 x 10mm Socket head bolt	*	6
20	Ball bearing 6003ZZ	5U496	1	63	Work stop	25491.00	1
21	Ball bearing	03054.00	1	64	8mm Flat washer (N)	*	1
22	Snap ring	25492.00	1	65	5-0.8 x 20mm Socket head bolt	*	1
23	3AMI-17 Retaining ring	*	1	66	8-1.25 x 25mm Socket head bolt	*	10
24	Pivot bracket	25490.00	1	67	8mm Flat washer	*	10
25	Spacer	25479.00	7	68	Angle label	25486.00	2
26	8-1.25 x 20mm Socket head bolt	*	1	69	Handle assembly	25481.00	3
27	Bolt liner	25488.00	1	70	Belt table	25507.00	1
28	8-1.25 x 45mm Carriage bolt	*	2	71	Trunnion	25483.00	3
29	5-0.8 x 16mm Socket head bolt	*	3	72	Platen pad	16842.00	1
30	6-1.0 x 8mm Socket head bolt	*	4	73	Abrasive belt	5A998	1
31	Bracket	25523.00	2	74	Disc guard	25480.00	1
32	4-0.7 x 12mm Set screw	*	1	75	8-1.25 x 16mm Socket head bolt	*	3
33	Guide block	25522.00	1	76	Pointer	03045.00	1
34	5-0.8mm Fiber hex nut	*	1	77	Pulley	25477.00	1
35	Connecting rod	25525.00	1	78	V-Belt	25476.00	1
36	6-1.0mm Hex nut	*	5	79	Aluminum disc	25475.00	1
37	6-1.0 x 50mm Set Screw	*	1	80	12" Abrasive disc	6A026	1
38	6mm Lock Washer	*	3	81	Disc cover plate	02226.00	1
39	Rod end	25524.00	1	82	Disc table	25487.00	1
40	5-0.8 x 25mm Socket head bolt	*	1	83	Belt guard	25591.00	1
41	Adjusting nut	25504.00	2	84	6-1.0 x 12mm Hex head bolt	*	2
42	Spacer	25482.00	2	85	6mm Flat washer	*	2
43	Spring	03068.00	2				

(\*) Standard hardware item, available locally.

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**For Repair Parts, call 1-800-323-0620**  
**24 hours a day - 365 days a year**

Please provide following information:  
-Model number  
-Serial number (if any)  
-Part description and number as shown in parts list

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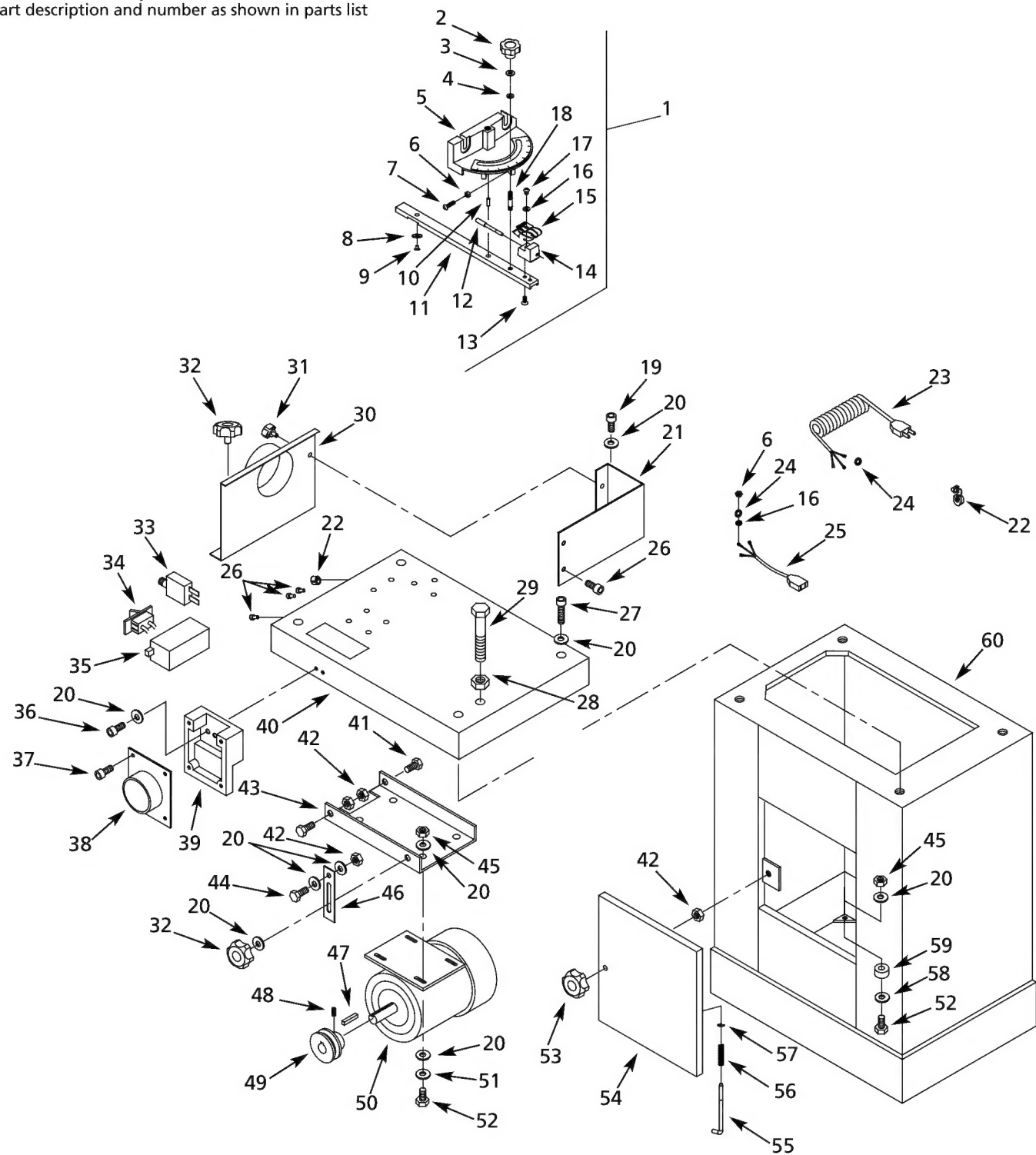
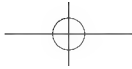


Figure 12 – Repair Parts Illustration for Cabinet





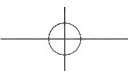
Repair Parts List for Cabinet

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Miter gauge assembly (Incl. Ref. Nos. 2-18)	25478.00	1	37	5-0.8 x 8mm Socket head bolt	*	4
2	Knob	25510.00	1	38	Dust collection port	25541.00	1
3	6mm Flat washer	*	1	39	Disc cover bracket	25540.00	1
4	Spacer	25511.00	1	40	Base	†	1
5	Miter gauge	25517.00	1	41	8-1.25 x 16mm Socket head bolt	*	2
6	5-0.8mm Hex nut	*	4	42	8-1.25mm Locking nut	*	4
7	5-0.8 x 20mm Pan head screw	*	3	43	Motor plate	25536.00	1
8	Spacer	25518.00	1	44	8-1.25 x 20mm Socket head bolt	*	1
9	6-1.0 x 8mm Pan head screw	*	1	45	8-1.25mm Hex nut	*	8
10	Pin	25519.00	1	46	Hang up bracket	25539.00	1
11	Miter gauge bar	25516.00	1	47	5 x 5 x 32mm Key	23256.00	1
12	Indexing pin	25515.00	1	48	6-1.0 x 10mm Set screw	*	1
13	5-0.8 x 10mm Pan head screw	*	2	49	Motor pulley	25538.00	1
14	Indicator	25514.00	1	50	Motor with cord	25537.00	1
15	Scale	25513.00	1	51	8mm Lock washer	*	4
16	5mm Flat washer	*	2	52	8-1.25 x 25mm Socket head bolt	*	8
17	5-0.8 x 8mm Pan head screw	*	1	53	Knob	25532.00	1
18	Threaded pin	25512.00	1	54	Cabinet door	25533.00	1
19	8-1.25 x 12mm Socket head bolt	*	2	55	Rib	25535.00	1
20	8mm Flat washer	*	23	56	Spring	25534.00	1
21	Dust hood base	25546.00	1	57	4mm Flat washer	*	1
22	Strain relief	25530.00	3	58	8mm Flat washer (N)	*	4
23	Line cord	25547.00	1	59	Foot rest	25529.00	4
24	5mm Serrated washer	*	2	60	Cabinet	N/A	1
25	Switch cord	25548.00	1	Δ	Hardware bag	25549.00	1
26	5-0.8 x 10mm Socket head bolt	*	5	<b>Recommended Accessories</b>			
27	8-1.25 x 70mm Socket head bolt	*	4	<b>Abrasive Belts 6 x 48":</b>			
28	12-1.75mm Hex nut	*	1	Δ	36 Grit	5A995	1
29	12-1.75 x 150mm Socket head bolt	25551.00	1	Δ	50 Grit	5A996	1
30	Dust hood	25545.00	1	Δ	60 Grit	5A997	1
31	Knob	25544.00	1	Δ	80 Grit	5A998	1
32	Knob	25531.00	3	Δ	120 Grit	5A999	1
33	18A Circuit breaker	25543.00	1	<b>Abrasive Discs 12" Diameter:</b>			
34	Switch	08066.00	1	Δ	36 Grit	2D627	1
35	Switch box	25542.00	1	Δ	50 Grit	6A025	1
36	5-0.8 x 16mm Socket head bolt	*	2	Δ	80 Grit	6A026	1
				Δ	120 Grit	6A027	1

- (Δ) Not shown.  
(†) Not available as repair part.  
(\*) Standard hardware item, available locally.

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# Dayton® 6 x 12" Belt & Disc Sander

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**Manufactured for Dayton Electric Mfg. Co., 5959 W. Howard St., Niles, Illinois 60714-4014 U.S.A.**

**Manufactured for Dayton Electric Mfg. Co.  
Niles, Illinois 60714 U.S.A.**

